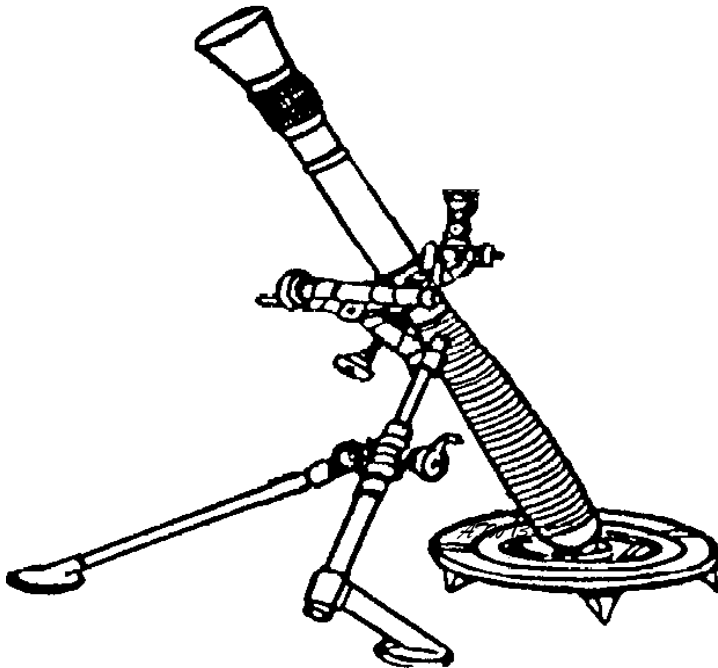


TEAM DRILL #2

81mm M16 PLOTTING BOARD BASIC PROCEDURES



**UNITED STATES ARMY INFANTRY SCHOOL
INFANTRY MORTAR LEADER COURSE
MTR CO 1ST BATTALION 19TH INFANTRY REGIMENT
FT. BENNING, GEORGIA 31905
AUGUST 2021**

TEAM DRILL #2

MODIFIED-OBSERVED FIRING CHART

(81mm)

PURPOSE: This team drill is intended to give the student a working knowledge of the techniques used in computing on an observed firing chart. When you have successfully completed this drill, you will have the basic working knowledge required of an FDC computer utilizing the modified-observed firing chart.

REFERENCES:

TC 3-22.91

ATP 3-09.30

FT. BENNING MAP

FORWARD PLOT CD 0599 AND CD 0600

DATA SHEET																		
GI: 99 / 56						For use of this form, see TC 23-91. The proponent agency is TRADOC.												
SETUP				WEAPON DATA								FO DATA						
TIME OUT:				UNIT:		WPN : DIR : DIS :		WPN : DIR : DIS :		EO		ALT		GRID				
TGT PREFIX: CD										S 25		630		9826 / 5486				
TGT NO: 0601-0700				81 MM CAR ☐ YES														
ALARM ☐ ON ☐ OFF				M252 ☒ NO														
MIN E:				BP: #2		WPN : DIR : DIS :		WPN : DIR : DIS :										
MIN N:																		
GD: ☐ E ☐ W				E: 0035		WPN : DIR : DIS :		WPN : DIR : DIS :										
LAT: ☐ + ☐ -				N: 5448														
LISTEN: ☐ ON ☐ OFF				ALT: 530		WPN : DIR : DIS :		WPN : DIR : DIS :										
BIT RATE				AZ: 5230 / 5250														
KEY TONE				DEF: 0700		WPN : DIR : DIS :		WPN : DIR : DIS :										
BLK ☐ SNG ☐ DBL				ELE:														
OWNER ID:																		
AMMUNITION DATA																		
TEMPERATURE:				TYPE: ☒ HE ☐ WP ☒ ILL ☐ CS ☐ TNG ☒ RP														
LOT#		M821		M819RP		M301A3												
WHEIGHT/ TYPE																		
ON HAND																		
RECEIVED																		
TOTAL																		
ROUNDS EXPENDED																		
ROUNDS REMAINING																		
TARGET DATA																		
TARGET ID			CHART DATA		FIRING CORRECTIONS				FIRING DATA				INTELLIGENCE				ROUND	
TGT #	GRID	ALT	DEFL /CHG	RNG	DEFL CORR	RNG CORR	ALT VI	ALT CORR	DEFL	RNG /CHG	F.S.	ELE	TIME FIRED	TARGET DESCRIPTION	METHOD OF ENGAGEMENT	SURV	EXP	
CD 0599		530	0698	3300			530	0	0698	2		0910						
CD 0600		530	0570	2200			530	0	0570	2		1233						
CD 0601																		
CD 0602																		
CD 0603																		
CD 0604																		

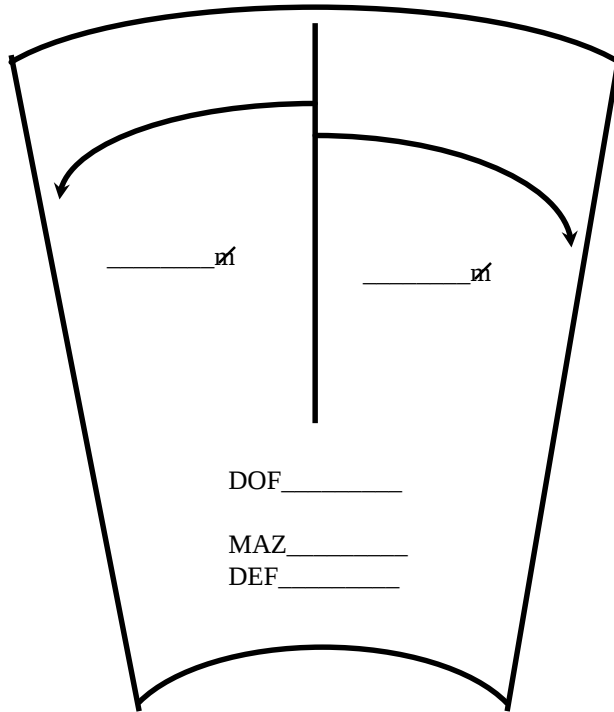
SAFETY DIAGRAM

MAX CHARGE_____

81mm / 60mm / 120mm
(Circle Mortar Fired)

CHG MIN ELEV

MAX RANGE_____



LEFT LIMIT

AZ_____
DEF_____

RIGHT LIMIT

AZ_____
DEF_____

DOF_____

MAZ_____
DEF_____

MIN RANGE_____

MIN CHARGE_____

CHG MAX ELEV TIME FUZE

FIRING POSITION COORDINATES_____

MOUNTING AZIMUTH_____

Left Limit Azimuth: 4880
Right Limit Azimuth: 5580
Ref Defl: 0700
Grid Int: 99 / 56

Max Range: 4000m
Min Range: 400m
Max Charge: 4
Min Charge: 0

Compute the following mission and update your data sheet.

COMPUTER'S RECORD

For use of this form, see TC 3-22.91: the proponent agency is TRADOC

[illegible]

BATTLE DAMAGE ASSESSMENT (BDA): WEAPON DESTROYED	
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AIM POINT GRID:

DA FORM 2399, MAY 2017

PREVIOUS EDITIONS ARE OBSOLETE.

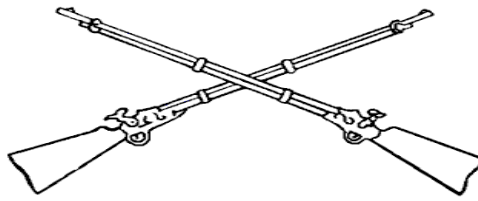
APD LC v1.00

Compute this mission, mark as TGT 0602, and update your data sheet.

[illegible]

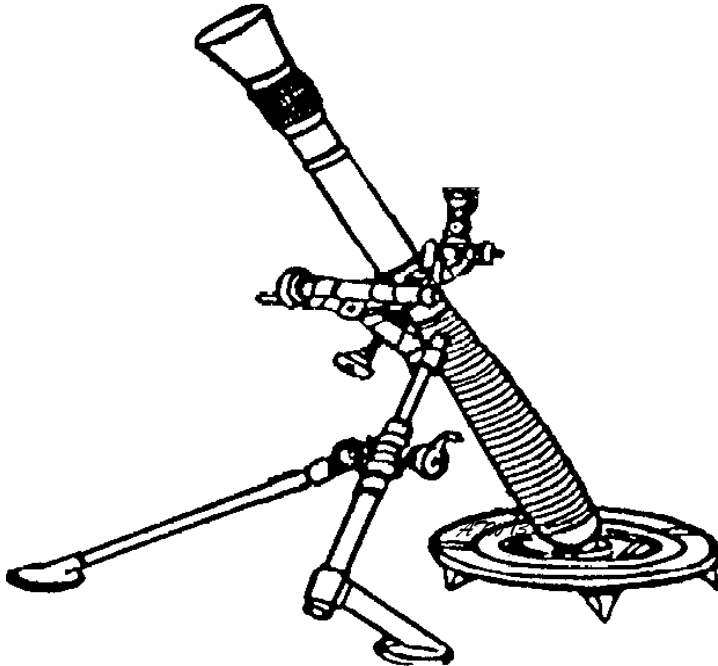
Compute the mission and update your data sheet.

Compute the following fire mission and update your data sheet.



TEAM DRILL #2 SOLUTIONS

81mm M16 PLOTTING BOARD BASIC PROCEDURES



**UNITED STATES ARMY INFANTRY SCHOOL
INFANTRY MORTAR LEADER COURSE
MTR CO 1ST BATTALION 19TH INFANTRY REGIMENT
FT. BENNING, GEORGIA 31905
AUGUST 2021**

DATA SHEET																			
GI: 99 / 56					For use of this form, see TC 23-91. The proponent agency is TRADOC.														
SETUP					WEAPON DATA										FO DATA				
TIME OUT:					UNIT:		WPN : DIR : DIS :		WPN : DIR : DIS :		EO		ALT		GRID				
TGT PREFIX: CD											S 25		630		9826 / 5486				
TGT NO: 0601-0700					81 MM CAR ☐ YES														
ALARM ☐ ON ☐ OFF					M252 ☒ NO														
MIN E:					BP: #2		WPN : DIR : DIS :		WPN : DIR : DIS :										
MIN N:																			
GD: ☐ E ☐ W					E: 0035														
LAT: ☐ + ☐ -					N: 5448														
LISTEN: ☐ ON ☐ OFF					ALT: 530		WPN : DIR : DIS :		WPN : DIR : DIS :										
BIT RATE					AZ: 5230 / 5250														
KEY TONE					DEF: 0700														
BLK ☐ SNG ☐ DBL					ELE:														
OWNER ID:																			
AMMUNITION DATA																			
TEMPERATURE:					TYPE: ☒ HE ☐ WP ☒ ILL ☐ CS ☐ TNG ☒ RP														
LOT#		M821 M819RP M301A3																	
WHEIGHT/ TYPE																			
ON HAND																			
RECEIVED																			
TOTAL																			
ROUNDS EXPENDED																			
ROUNDS REMAINING																			
TARGET DATA																			
TARGET ID			CHART DATA		FIRING CORRECTIONS				FIRING DATA				INTELLIGENCE				ROUND		
TGT #	GRID	ALT	DEF	RNG /CHG	DEFL CORR	RNG CORR	ALT VI	ALT CORR	DEFL	RNG /CHG	F.S.	ELE	TIME FIRED	TARGET DESCRIPTION	METHOD OF ENGAGEMENT	SURV	EXP		
			FORWARD PLOT																
CD 0599			0698	3300			530 0	0	0698	2		0910							
CD 0600			0570	2200			530 0	0	0570	2		1233							
CD 0601	974 562		0626	3450			550 +20	0	0626	3		1160		Anti-Tank Weapon	SEC 2 RDS	WPN DESTR.	9		
CD 0602	973 548		1006	3025			500 -30	0	1006	2		1030		RPG TM	SEC 2 RDS	TGT DEST	10		
CD 0603			0753	2975			590 +60	+30	0753	2/3000		1038		ENEMY CP	SEC 3 RDS	CP DEST	13		
CD 0604			0402	3875			550 +20	0	0402	3		1082		Stationary Trucks	2/4: 2HE	5 TRKS BURNING	6		
										3	32.3	0901			1/3: 2RP	5 TRKS BURNING	4		

SAFETY DIAGRAM

MAX CHARGE 4

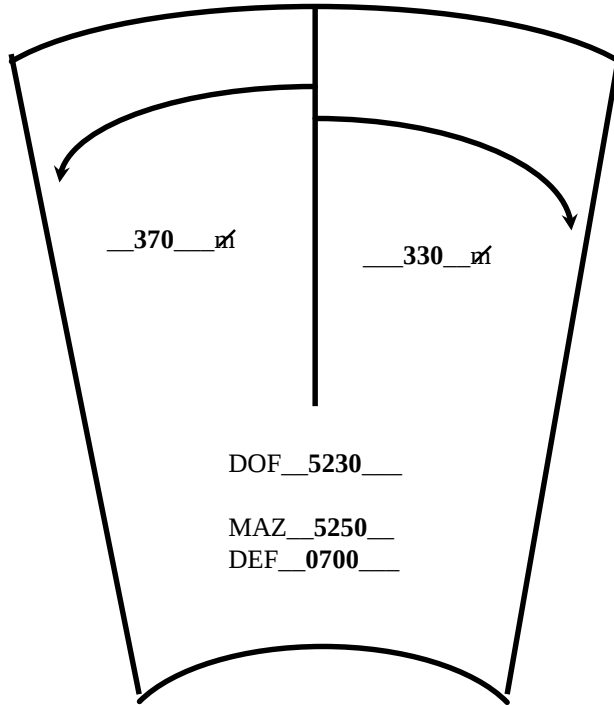
81mm / 60mm / 120mm
(Circle Mortar Fired)

CHG MIN ELEV

4 1185

3 1055

MAX RANGE 4000



LEFT LIMIT

AZ 4880

DEF 1070

DOF 5230

MAZ 5250

DEF 0700

RIGHT LIMIT

AZ 5580

DEF 0370

MIN RANGE 400

MIN CHARGE 0

CHG MAX ELEV TIME FUZE

0 1099

1 1498

FIRING POSITION COORDINATES 0035 5448

MOUNTING AZIMUTH 5250

Left Limit Azimuth: 4880

Right Limit Azimuth: 5580

Ref Defl: 0700

Grid Int: 99 / 56

Max Range: 4000m

Min Range: 400m

Max Charge: 4

Min Charge: 0

For use of this form, see TC 3-22.91; the proponent agency is TRADOC

BATTLE DAMAGE ASSESSMENT (BDA): **WEAPON DESTROYED** AIM POINT GRID: _____
DA FORM 2399, MAY 2017 PREVIOUS EDITIONS ARE OBSOLETE. APD LC v1.00

For use of this form, see TC 3-22.91; the proponent agency is TRADOC

BATTLE DAMAGE ASSESSMENT (BDA): **TGT DESTROYED** AIM POINT GRID: _____
 DA FORM 2399, MAY 2017 PREVIOUS EDITIONS ARE OBSOLETE. APD LC v1.00

COMPUTER'S RECORD

For use of this form, see TC 3-22.91; the proponent agency is TRADOC

ORGANIZATION SITUATION C	DATE	TIME	OBSERVER ID S 25	TARGET NUMBER CD 0603
☒ ADJUST FIRE ☐ FIRE FOR EFFECT ☐ IMMEDIATE SUPPRESSION	SHIFT FROM CD 0599 OT DIRECTION 5100 ALTITUDE 590		POLAR OT DIRECTION _____ ALTITUDE _____ DISTANCE _____ VERTICAL INTERVAL _____ ☐ UP / ☐ DOWN VERTICAL ANGLE _____ ☐ + ☐ _____	
GRID _____ OT DIRECTION _____ ALTITUDE _____	☒ LEFT / ☐ RIGHT 200 ☐ ADD / ☒ DROP 300 ☒ UP / ☐ DOWN 60			

TARGET DESCRIPTION **ENEMY COMMAND POST**

FDC ORDER			INITIAL CHART DATA			INITIAL FIRE COMMAND			ROUNDS EXPENDED		
MORTAR TO FFE SEC	DEFLECTION 0753	MORTAR TO FOLLOW SEC	DEFLECTION CORRECTION ☐ L ☐ R RANGE 2975 VI/ALT CORRECTION +60 ☒ + ☐ - +30 RANGE CORRECTION ☐ + ☐ - 2 CHARGE 3000 RANGE 5197 AZIMUTH 100			SHELL AND FUZE HEQ MORTAR TO FIRE #2 METHOD OF FIRE 1 RD I/ADJ 3 RDS I/FFE DEFLECTION 0753 CHARGE 2 ELEVATION 1038 TIME SETTING _____			1		
MORTAR TO ADJ #2											
METHOD OF ADJ 1 RD											
BASIS FOR CORRECTION _____											
SHEAF CORRECTION CONV #2						MAX ORD					
SHELL AND FUZE HEQ						1362m					
METHOD OF FFE 3 RDS									TOF		
RANGE LATERAL SPREAD _____									33.5		
TIME OF OPENING FIRE W / R									MARK TIME		
MOC TYPE WR ☒ AMC ☐ TOT ☐ OTH ☐											

OBSERVER CORRECTION			CHART/SAFETY DATA		SUBSEQUENT COMMANDS						
DEV	RANGE	TIME (HEIGHT)	DEF/AZ	RANGE	MORTAR FIRE	METHOD FIRE	AIM AZIMUTH	DEFLECTION	CHARGE	TIME	ELEV
		FFE			SEC	3 RDS		#1: 0767			
								#2: 0753			
								#3: 0739			
								#4: 0725		1038	13
					EOM						

For use of this form, see TC 3-22.91; the proponent agency is TRADOC

AIM POINT GRID:

BURNING
PREVIOUS EDITIONS ARE OBSOLETE.

APD LC v1.00